

**FINAL REPORT OF THE
BUTTERFLY FIELD INVENTORIES
FOR AGATE FOSSIL BEDS
NATIONAL MONUMENT
AND SCOTTSBLUFF NATIONAL
MONUMENT**

December 2004

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- A. This survey of the butterfly species of Agate Fossil Beds National Monument took place during five visits between June 12, 2004 and September 11, 2004. Each visit lasted four hours or more.

Dates	Temperature	Winds	Cloud Cover
12-VI-04	80° – 85°	W – 20-25 mph	Few, sparse
3-VII-04	90° +	W – 5-10 mph	Clear
31-VII-04	81° – 90°	Light breeze	Clear
13-VIII-04	74°	Light breeze	Partly cloudy
11-IX-04	80°	W – 5-10 mph	Partly cloudy

Location:

East end of Agate Fossil Beds National Monument:

N 42°25.716' W 103°43.751'

Agate Fossil Beds National Monument Butterfly Records (2004)						
Common Name	Scientific Name	12-VI-04	3-VII-04	31-VII-04	13-VIII-04	11-IX-04
Two-tailed Swallowtail	<i>Papilio multicaudata</i>	X				
Cabbage White	<i>Pieris rapae</i>	X	X	X	X	X
Checkered White	<i>Pontia protodice</i>	X		X		X
Clouded Sulphur	<i>Colias philodice</i>		X	X	X	X
Orange Sulphur	<i>Colias eurytheme</i>				X	X
Acadian Hairstreak	<i>Satyrrium acadica</i>		X	X		
Ruddy Cooper	<i>Lycaena rubidus</i>		X			
Purplish Cooper	<i>Lycaena helloides</i>				X	
Gray Cooper	<i>Lycaena dione</i>				X	
Melissa Blue	<i>Lycaeides melissa</i>	X		X		
Edward's Fritillary	<i>Speyeria edwardsii</i>	X				
Regal Fritillary	<i>Speyeria idalia</i>	X	X			
Pearl Crescent	<i>Phyciodes tharos</i>	X				X
Milbert's Tortoiseshell	<i>Nymphalis milberti</i>		X			
Common Wood Nymph	<i>Cercyonis pegala</i>			X	X	
Eyed Brown	<i>Satyrodes eurydice</i>		X	X		
Mourning Cloak	<i>Nymphalis antiopa</i>	X		X		
Painted Lady	<i>Vanessa cardui</i>	X	X			
Red Admiral	<i>Vanessa atalanta</i>			X		
Monarch	<i>Danaus plexippus</i>		X		X	
Common Checkered- Skipper	<i>Pyrgus communis</i>	X		X		X
Long Dash	<i>Polites mystic</i>		X			
Peck's Skipper	<i>Polites peckius</i>			X		

- B. This survey of the butterfly species of Scottsbluff National Monument took place during five visits between June 13, 2004 and August 14, 2004. Each visit lasted four hours or more.

Dates	Temperature	Winds	Cloud Cover
13-VI-04	85° – 92°	W- 20-30 mph	Partly cloudy - cloudy
5-VII-04	80° – 85°	Slight-5 mph	Scattered clouds
17-VII-04	90° – 98°	--	--
1-VIII-04	85° – 98°	< 1 mph	Few, sparse
14-VIII-04	80° – 94°	W - 5-10 mph	Thunderheads building N of Scottsbluff

Locations:

Scottsbluff National Monument Parking Lot (East of Office):
N 41°49.706' W 103°42.400'

NE Gate (end of Mink Farm Road-Between canal & river):
N 41°51.018' W 103°41.107'

Scottsbluff National Monument Butterfly Records (2004)						
Common Name	Scientific Name	13-VI-04	5-VII-04	17-VII-04	1-VIII-04	14-VIII-04
Two-tailed Swallowtail	<i>Papilio multicaudata</i>	X				X
Cabbage White	<i>Pieris rapae</i>	X	X	X	X	X
Checkered White	<i>Pontia protodice</i>	X		X		X
Orange Sulphur	<i>Colias eurytheme</i>	X		X		
Clouded Sulphur	<i>Colias philodice</i>				X	X
Gray Hairstreak	<i>Strymon melinus</i>		X		X	
Viceroy	<i>Limenitis archippus</i>	X	X			X
Mourning Cloak	<i>Nymphalis antiopa</i>		X	X	X	X
Painted Lady	<i>Vanessa cardui</i>		X			X
Red Admiral	<i>Vanessa atalanta</i>			X	X	
Common Wood Nymph	<i>Cercyonis pegala</i>		X	X	X	
Milbert's Tortoiseshell	<i>Nymphalis milberti</i>		X			X
Monarch	<i>Danaus plexippus</i>					X
Common Checkered-Skipper	<i>Pyrgus communis</i>	X		X		X
Common Roadside-Skipper	<i>Andyscirtes vialis</i>	X				X
Common Sootywing	<i>Pholisora catullus</i>			X		X
Hobomok Skipper	<i>Poanes hobomok</i>	X	X			
Least Skipper	<i>Anycloxypha numitor</i>		X	X		X
Silver-spotted Skipper	<i>Epargyreus clarus</i>	X				

- C. The following is a list of the plant genera of each site associated with caterpillar feeding or adult nectar feeding:

Genera	Number of Species Present		Butterfly Use
	Agate	Scottsbluff	
<i>Amaranthus</i>	3	3	Common Sootywing
<i>Ambrosia</i>	3	3	Common Sootywing
<i>Artemisia</i>	5	8	Ruddy Cooper
<i>Asclepias</i>	4	5	Monarch
<i>Aster</i>	4	2	Pearl Crescent
<i>Astragalus</i>	9	7	Sulfurs & Blues
<i>Atriplex</i>	2	5	
<i>Bidens</i>	2	2	Monarch, Blues, Hairstreaks
<i>Castilleja</i>	1	--	
<i>Cercocarpus</i>	--	1	Gray Hairstreak
<i>Chenopodium</i>	6	4	Common Sootywing
<i>Chrysothamnus</i>	--	2	Painted Lady & Skippers
<i>Cirsium</i>	5	5	Painted Lady
<i>Cuscuta</i>	1	--	
<i>Descurainia</i>	2	2	
<i>Eriogonum</i>	3	4	Gray Hairstreak & Painted Lady
<i>Erysimum</i>	1	1	
<i>Glycyrrhiza</i>	1	1	Melissa Blue
<i>Helianthus</i>	3	3	
<i>Lathyrus</i>	1	1	
<i>Lepidium</i>	1	2	Whites
<i>Linum</i>	1	2	
<i>Lupinus</i>	2	1	Blues
<i>Machaeranthera</i>	4	2	Checkered-Skipper
<i>Penstemon</i>	3	3	
<i>Poa</i>	5	3	Skippers & Mourning Cloak
<i>Populus</i>	1	1	Tiger Swallowtails
<i>Prunus</i>	--	1	Two-tailed Tiger Swallowtail
<i>Rumex</i>	3	5	Coopers
<i>Salix</i>	4	4	Mourning Cloak, Viceroy & Swallowtails
<i>Salvia</i>	--	1	Fritillaries
<i>Sphaeralcea</i>	1	1	Skippers
<i>Stipa</i>	--	2	Blues
<i>Trifolium</i>	1	--	Sulphurs & Blues
<i>Urtica</i>	1	1	Milbert's Tortoise-shell & Red Admiral
<i>Vicia</i>	--	2	Blues
<i>Viola</i>	1	1	Fritillaries
<i>Yucca</i>	1	1	Giant-Skipper

D. Conclusions

1. Total of 30 species of Butterflies Observed
(**Agate**: 23 species & **Scottsbluff**: 19 species)
2. The drought during the 2003-2004 growing seasons greatly affected the availability & blooming of food plants in both of these areas. Until the effects of this drought are alleviated, I would not propose any changes in management for the butterfly community.